

## REMARKS

This is intended as a full and complete response to the Office Action dated August 24, 2004, having a shortened statutory period for response set to expire on November 24, 2004. Claims 13, 15 and 21 have been indicated by the Examiner as allowable. Claim 6 has been rewritten in independent form to include the limitations of the base claim and all intervening claims. Claims 1, 3, 7, 11-15, 19-21 have been amended to more clearly recite aspects of the invention. Applicant believes no new matter has been introduced by the amendments presented herein. The amendments have been made in a good faith effort to advance prosecution on the merits. Claims 4 and 18 have been cancelled without prejudice. Applicant reserves the right to subsequently take up prosecution of the claims as originally filed in this application in a continuation, a continuation-in-part and/or a divisional application. Please reconsider the claims pending in the application for reasons discussed below.

In a telephone interview on October 25, 2004, the Examiner indicated that claims 1-3, 5-17 and 19-21 are patentable over the references of record. Applicant appreciates the Examiner's courtesy for scheduling and conducting the interview.

Claim 18 stands rejected under 35 U.S.C. § 112, second paragraph. The Examiner takes the position that it is unclear whether the "input unit" of claim 18 is the same as the "input device" of claim 14. Claim 18 has been cancelled without prejudice. Accordingly, withdrawal of the rejection is respectfully requested.

Claims 1-3 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,166,801 ("*Dishon*"). *Dishon* is generally directed to a defect inspection tool in a photolithography system. The defect inspection tool is configured to inspect wafers according to photolithography process parameters after the wafers have passed through a developing station and before the wafers are passed to the unloading station. *Dishon* proposes post processing upon completion of coarse or fine inspection. During post processing, the data can be evaluated and reported at different levels, which are specified as a) numbers and coordinates of defects detected on the wafer, (b) coordinates and defects dimensions, (c) coordinates and defects identification, or (d) morphological defects analysis, e.g., according to local and/or overall wafer distribution,

such as radial distribution which may indicate poor spinning during coating. The post processing may include photographing certain defects for additional processing.

However, *Dishon* does not teach or disclose receiving process data readings from an optical inspection system, wherein the data readings comprise optical signal signature information indicative of process uniformity on the substrate surface inspected by the optical inspection system. The inspection tool in *Dishon* is configured to inspect for defects on the substrate surface, not for process uniformity. Accordingly, claim 1 is patentable over *Dishon*. Claims 2-3 are also patentable over *Dishon* since they depend from claim 1.

Claim 1 stands rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,004,047 ("*Akimoto*"). *Akimoto* is generally directed to a method and apparatus for processing photoresist. However, like *Dishon*, *Akimoto* fails to teach or disclose receiving process data readings from an optical inspection system, wherein the data readings comprise optical signal signature information indicative of process uniformity on the substrate surface inspected by the optical inspection system. Accordingly, claim 1 is patentable over *Akimoto*. Claims 2-3 are also patentable over *Akimoto* since they depend from claim 1.

Claims 5 stands rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,672,091 ("*Takahashi*"). *Takahashi* is generally directed to a polishing apparatus having an endpoint detection device, which is configured to detect non-uniformity on the surface of a substrate and send a signal to the polishing apparatus to stop the polishing operation upon reaching an endpoint. However, *Takahashi* fails to teach or disclose determining whether an unacceptable substrate process condition exists and if the unacceptable substrate process condition exists, then initiating a system shut down sequence. The *Takahashi* endpoint detection device merely stops the polishing operation, and does not initiate a shut down sequence for the entire processing system. Accordingly, claim 5 is patentable over *Takahashi*.

Claims 7-12, 14, and 16-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,021,380 ("*Fredriksen*") in view of U.S. Patent No. 6,166,800 ("*Dishon*"). *Fredriksen* is generally directed to an automatic wafer prober with an extended optical inspection. However, *Fredriksen* fails to teach or disclose a

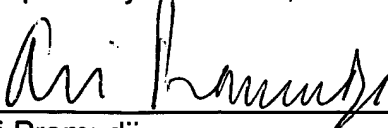
controller system configured to determine a routing sequence for the substrate in response to the topographical condition. *Dishon* also fails to teach or disclose a controller system configured to determine a routing sequence for the substrate in response to the topographical condition. Neither *Fredriksen* nor *Dishon*, alone or in combination, teaches or discloses a controller system configured to determine a routing sequence for the substrate in response to the topographical condition. Furthermore, there is no suggestion discerned in *Fredriksen* or *Dishon* of modifying the devices or methods disclosed therein in the direction of the present invention, nor does there appear to be any suggestion of the desirability of such modifications. Therefore, claims 7 and 14 are patentable over *Fredriksen* in view of *Dishon*. Claims 8-12 and 16-20 are also patentable over *Fredriksen* in view of *Dishon*, since they depend from claims 7 and 14, respectively.

Claims 13, 15 and 21 are allowable. Claim 6 stands objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. Accordingly, claim 6 has been rewritten in independent form to include all the limitations of the base claim and all intervening claims. Claim 6 is therefore in condition for allowance.

In conclusion, the references cited by the Examiner, neither alone nor in combination, teach, show, or suggest the claimed method or apparatus. Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

The prior art made of record is noted. However, it is believed that the secondary references are no more pertinent to the Applicant's disclosure than the primary references cited in the office action. Therefore, it is believed that a detailed discussion of the secondary references is not deemed necessary for a full and complete response to this office action. Accordingly, allowance of the claims is respectfully requested.

Respectfully submitted,

  
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